

REMARKS

This response is offered in reply to the Advisory Action mailed October 18, 2004. A petition and fee for a two month time extension are enclosed.

In paragraph 2 of the office action, claims 1-15 are rejected under 35 USC 103(a) in view of Naik US Patent 4,885,216.

Applicant cancels claims 1-10 in order to advance prosecution of the application. However, Applicant reserves the right to further prosecute canceled claims 1-10 at a later date by way of filing a continuation, divisional or other means.


Claims 11-15 remain and have been amended to distinguish over the '261 patent. For example, claim 11 now recites a coated article comprising the recited superalloy substrate, an outwardly grown diffusion aluminide bondcoat on the substrate, and a ceramic thermal barrier coating disposed on the bondcoat and having improved resistance to spallation due to cyclic oxidation. Applicant's Figures 3, 4, and 5 and specification pages 8-10 illustrate the significant and unexpected prolongation of spallation life of the ceramic thermal barrier coating achieved. This significant prolongation of spallation life of the thermal barrier coating is unexpected from the oxidation resistance exhibited by the bondcoated alloys in Figure 2 where the outwardly grown bondcoated alloys are designated MDC-150L and the inwardly grown bondcoated alloys are designated LDC-2E.

The '216 patent does not disclose or suggest the claimed coated article having the features set forth in claim 11 such that a ceramic thermal barrier coating on a bondcoat exhibits improved resistance to spallation due to cyclic oxidation. The '216 patent does not disclose or suggest a thermal barrier coating at all. Moreover, the '216 alloy composition does not suggest the substrate of claim 11 since the alloy composition of the patent differs in several respects including having a higher, non-overlapping Ti concentration. Moreover, the '216 patent discloses at column 7, lines 65-66 to diffuse aluminum into the substrate which is indicative of an inwardly grown diffusion aluminide coating.

As a result, pending claim 11 is believed to be in allowable condition. Claims 12-15 are believed to be allowable as well over the '216 patent since the '216 patent is silent with respect to S less than 2 ppm as set forth in claim 14 and a Hf concentration of about 0.33 to about 0.8 weight % as set forth in claim 15 to provide improved resistance to spallation of a thermal barrier coating due to cyclic oxidation. The amendment to claim 15 is supported by the substrate compositions set forth in Table 1. Favorable consideration of the pending claims and their allowance is requested.

An IDS is enclosed citing US Patent 5,716,720 incorporated by reference herein on page 8 of the specification to make it of record herein.

Respectfully submitted,




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enclosure: Petition For Time Extension, IDS, & Post Card

CERTIFICATE OF MAILING

I hereby certify that this correspondence and enclosures are being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents
P.O. Box 1450, Alexandria, VA 22313-1450, on March 18, 2005.



Edward J. Timmer